



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

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DALLAS, TX 75202-2733

MAY 18 2012

Teresa Marks, Director
Arkansas Department of
Environmental Quality
P. O. Box 8913
Little Rock, Arkansas 72209

Dear Ms. Marks:

Enclosed is the Region's end-of-year (EOY) evaluation of the Underground Injection Control (UIC) program implemented by the Arkansas Department of Environmental Quality (ADEQ) during fiscal year 2011 (FY11). The EOY includes both UIC oversight and grant work plan topics.

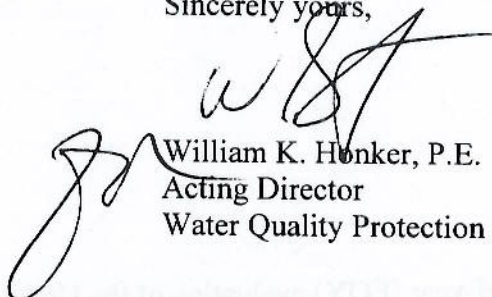
On January 31, 2012, Mr. Robert Todd of my staff visited the ADEQ's offices, and discussed current UIC program implementation issues with Ms. Linda Hanson, Mrs. Cathalene Purvis, and Mr. Rick McConnell. EPA's grants project officer for ADEQ, Mr. Michael Vaughan, was unable to join the EOY discussion in person but took part in the meeting via teleconference to discuss Grant and Quality Assurance/Quality Management Planning issues. The Region solicited comments on a draft FY11 EOY document through an e-mail transmittal to Ms. Hanson and her comments have been incorporated into this final report.

We appreciate the effort and attention you and your staff have given to implementation of the UIC program in Arkansas. EPA is encouraged that the program has focused attention on Class I wells, performing annual, individual fall off pressure testing of the receiving formation, and has up to date and complete inventory of the UIC wells in Arkansas, which enhances protection of your ground water resources.

We have also identified areas needing increased focus. We believe that it is important to test each well for fluid movement along the casing strings a minimum of once per five years and if the operators will not meet that schedule, action should be taken to close in that well. As noted in the EOY, there are a number of wells in Arkansas that have been given temporary abandonment status, but have not been tested on schedule for integrity. We believe it is absolutely vital to the integrity of the state's program that each well be tested regularly. We also believe that the state should work to permanently plug the abandoned UIC well and the fresh water well on the old Red River Aluminum site. These wells, left in their current condition, represent a threat to the useable drinking water in the area of Stamps, Arkansas and they should be permanently plugged. Lastly, we believe it is in the best interests of the state, industry and the public to clear the backlog of permit renewal requests.

We look forward to continuing our partnership in protecting Arkansas's ground water resources from contamination by underground injection activities. My staff remains ready to assist the State program upon request. If you have any questions or wish to discuss any program oversight issues, please call me at (214) 665-7100, or you may call Robert Todd at (214) 665-2156 for program questions or Mr. Michael Vaughan at (214) 665-7313 concerning grants questions.

Sincerely yours,



William K. Honker, P.E.
Acting Director
Water Quality Protection Division

cc: Linda Hanson, P. G.

Enclosure

**EPA REGION 6 END-OF-YEAR EVALUATION OF THE
ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ)
UNDERGROUND INJECTION CONTROL (UIC) PROGRAM**

Fiscal Year 2011 (FY2011)

October 1, 2010 - September 30, 2011

Executive Summary

This EOY review of the ADEQ's UIC program examines the current state of the program. The report summarizes the state's UIC activities during FY2011 and discusses each of the well operators and their facilities at length. Specific, achievable goals the state can attain during the FY 2012 grant year are listed and areas needing improvement are identified as issues the EPA wants addressed in the near future.

Program Summary

To increase ground water (GW) protection, a federal UIC program was established under the provisions of the Safe Drinking Water Act of 1974. Delegation of the federal program to the State of Arkansas can be found in 40 CFR 147, Subpart LL; the program was delegated to Arkansas effective July 6, 1982. The delegation was later amended on October 25, 1988 to clarify the EPA retains authority over any Indian land in Arkansas effective November 25, 1988. The ADEQ has jurisdiction over Class I, Class III, Class IV and Class V wells; excluding bromine related injection wells under the jurisdiction of the Arkansas Oil and Gas Commission (AOGC). (In Arkansas, the AOGC has jurisdiction over all Class II wells and Class V bromine related wells. See APCEC, Regulation No. 17, 17.301 (B)) At the end of FY10, the ADEQ's UIC inventory consisted of four Class I hazardous wells, one of them temporarily shut-in, and ten Class I non-hazardous wells, four of them shut-in. ADEQ has 281 Class V wells on inventory, 152 permitted by the agency with the remainder falling below the permitting threshold or under the jurisdiction of the AOGC. There were no Class III solution mining sites in operation in Arkansas at the end of FY2011. Class IV wells are banned with the exception of remediation wells.

FY2011 Grant Funding

ADEQ was awarded \$66,400 in April, 2011 and later allocated an additional \$14,600.00 in June, 2011 for the state's UIC grant. The \$81,000 total is Arkansas's share of UIC implementation funds awarded according to the formula EPA employs to ensure fair distribution of federal funds under this program. ADEQ spent all but \$11,475 of these funds during the FY2011.

Unexpended Funds

With the exception of FY 2008, the ADEQ UIC program has historically ended the fiscal year with unexpended funds that are returned to the EPA. In FY2011, \$11,475 in Federal Funds remained at the end of the fiscal year, was de-obligated and effectively returned to EPA.

FY2011 Work Plan

Deliverables: Attachment I, at the end of this report, details items the state committed to providing as part of their work plan for FY2011 and the dates on which those items were made available to EPA Region 6's Water Quality Protection Division, along with comments to expand on some points when necessary. Below is a summary of the main categories of activities addressed in the work plan are provided.

Enforcement and Compliance

ADEQ successfully completed their compliance and monitoring commitments for FY2011. The state's inventories of UIC wells were maintained or updated to improve their overall accuracy. They were able to adequately address detected violations in a prompt manner.

Permitting

All known injection wells in the state have been permitted. The state's inspection and monitoring efforts have assured the Class I wells are in compliance with permitting requirements, including requirements to limit injection rates and volumes, perform mechanical integrity testing and incorporate the required elements into the state issued permits. The state has struggled to process permit renewals requests for some of their sources, but has assured the EPA that they are on track to eliminate the backlog of renewals in FY2012.

Technical Services and Quality Assurance

ADEQ has been able to assure pressure fall-off testing for each formation was performed adequately. They have maintained their risk management data base. The ADEQ laboratory has supplied support to both the ADEQ and AOGC's UIC programs. The state's Quality Assurance Project Plan (QAPP) was submitted and the Quality Assurance (QA) plan was approved by the EPA.

Reporting

ADEQ submitted the work plans and quality assurance programs for the upcoming fiscal year on time. Specific reporting requirements and the times on which the agency submitted them to the EPA are listed in Attachment I, Appendix IV at the end of this report. All financial expenditure requirements were followed by the agency in FY2011. The agency appropriately reviewed and required owner/operators (O/O) to maintain the required financial assurances.

Public Participation and Training

ADEQ participated in two public meetings held to address surface storage facilities in the state. The state reported providing compliance assistance to O/O upon request. The agency provided opportunity for staff to attend EPA sponsored borehole logging training in Little Rock from August 3 to August 4 of 2011.

Program Administration

ADEQ appropriately performed their program administration duties as detailed in Attachment I, Element F below.

ADEQ FY2011 UIC Program Activity: ADEQ has met the basic needs of administering its UIC program for FY2011. A summary of accomplishments are detailed in Tables 2 through 5 below.

Table 1: ADEQ FY11 Class I UIC Activity Summary

ADEQ UIC Program Activity Summary October 1, 2010 to September 30, 2011	
Class I One Part Mechanical Integrity / Annular Pressure Testing events witnessed: Great Lakes South: July 21 (WDW-6) and July 27 (WDW-7); Great Lakes Newell: June 22 (WDW-7N); Great Lakes West: July 28 (WDW-1M) and July 28 (WDW-14M); Albemarle May 17 (WDW#3) and May 18 (WDW#13)	7
Class I well inspections conducted: All fourteen Class I wells and their well sites were visited and inspected every two months.	84
Notices of Violation Issued:	0
Notices of Deficiency (NOD) Issued: Great Lakes	1
Two Part Mechanical Integrity Tests Reviewed (5-year MITs): Great Lakes Central, June 17(WDW-6) and June 22 (WDW-5), Dow July 13-14 (DWD-1)	3
Fall off Pressure Tests Reviewed (Site Based): Great Lakes, Albemarle, and Dow. No indications of formation pressure rise over historical values were noted.	10
New Permits Issued	0
Permit Renewals Issued:	0
Permit Modifications Issued:	0
Permit Extensions Issued:	0
Permit Applications canceled or withdrawn	0
Class III Solution Mining Well Site Inspections: (no sites in Arkansas)	0

CLASS I INJECTION WELLS:

Tables 2 and 3, below, detail the Class I UIC well sites and milestone dates in the state's administration of the UIC program for Class I injection wells in the state. Table 4 summarizes the closed, but not yet plugged, Class I UIC wells.

Table 2: Class I Non-hazardous Mechanical Integrity Tests, Fall-Off Pressure Tests, and Inspections

ADEQ Class I Non-hazardous Mechanical Integrity Tests (MIT), Fall-Off Pressure (FOP) Tests, and Inspections October 1, 2010 to September 30, 2011				
Operator	Injection Well Designation	FOP Test Submitted	Inspection and 1-Part MIT	Last 2-part (5 year, external) MIT
GREAT LAKES SOUTH	WDW-5 ¹	Not Tested	Not tested	27-Aug-2010
	WDW-6	24-Aug-2011	21-Jul-11	27-Apr-2010
	WDW-7	24-Aug-2011	27-Jul-11	27-Apr-2010
GREAT LAKES NEWELL	WDW-7N	12-Jul-2011	22-Jun-11	13-Jul-2008
	WDW-8N ²	Not Tested	Not tested	30-Jul-2008
GREAT LAKES WEST	SWD-1M ³	Not Tested	28-Jul-11	23-Jun-2005
	SWD-14M	26-Aug-2011	28-Jul-11	30-Jul-2008
ALBEMARLE CORPORATION	WDW #3	31-May-2011	17-May-11	9-Jun-2008
	WDW #13	31-May-2011	18-May-11	12-Jun-2008
RED RIVER ALUMINUM	WDW #1 ⁴	Not Tested	Not Tested	9-Dec-1997*
¹ Temporarily abandoned June 2, 2011.				
² Temporarily abandoned July 8, 2011.				
³ Temporarily abandoned April 28, 2010, note: <i>Per §144.52(6), after two years cessation of operations, an owner/operator must plug or test a well for integrity and notify RA.</i>				
⁴ "Shut In" – Permanently Abandoned and not Plugged.				
* Record not found.				

Table 3: Class I Hazardous Mechanical Integrity Tests, Fall-Off Pressure Tests, and Inspections

ADEQ Class I Hazardous Mechanical Integrity Tests (MIT), Fall-Off Pressure (FOP) Tests, and Inspections October 1, 2010 to September 30, 2011				
Operator	Injection Well Designation	FOP Test Submitted	Inspection and Semi-Annual MIT	Last 2-part (5 year, external) MIT
GREAT LAKES CENTRAL	WDW-5	July 12, 2011	NA, see 2-Part MIT	22-Jun-11
	WDW-6	July 12, 2011	NA, see 2-Part MIT	17-Jun-11
ALBEMARLE CORPORATION	WDW #2 ¹	Not Tested	Yes for Inspection No for MIT	27-Apr-05
DOW CHEMICAL COMPANY	DWD-1	July 28, 2011	NA, see 2-Part MIT	13 Jul 11 – 14 Jul 11
¹ Temporally abandoned April 5, 2010, note: <i>Per §144.52(6), after two years cessation of operations, an owner/operator must plug or test a well for integrity and notify RA</i>				

Table 4: Class I Abandoned Class I UIC Wells

ADEQ Abandoned Class I UIC Wells October 1, 2010 to September 30, 2011					
Operator	Injection Well Designation	Hazardous or Non-Hazardous	Status	Plugging Status	Notification to State
GREAT LAKES South	WDW-5	Non-Hazardous	Temporary	Unplugged	Status Letter June 2, 2011
GREAT LAKES Newell	WDW-8N	Non-Hazardous	Temporary	Unplugged	Status Letter July 8, 2011
GREAT LAKES West	SWD-1M	Non-Hazardous	Temporary	Unplugged	Status Letter April 28, 2010

ADEQ Abandoned Class I UIC Wells October 1, 2010 to September 30, 2011					
Operator	Injection Well Designation	Hazardous or Non-Hazardous	Status	Plugging Status	Notification to State
ALBEMARLE CORPORATION	WDW #2	Hazardous	Temporary	Unplugged	Status Letter April 5, 2010
RED RIVER ALUMINUM	WDW #1	Non-Hazardous	Appears to be permanent.	Unplugged	Late 1990's (as part of Brownfields closure action).
Note: Per §144.52(6), after two years cessation of operations, an owner/operator must plug or test a well for integrity and notify RA.					

CLASS II SALT WATER DISPOSAL (SWD) INJECTION WELL SURFACE FACILITIES:

Under an agreement with the Arkansas Oil and Gas Commission, the ADEQ is responsible for the permitting and inspection of surface facilities associated with Class II SWD injection wells in Arkansas. During FY2011, the ADEQ performed 110 inspections of these surface facilities. No violations of permitting or state regulations were detected during these inspections.

CLASS III INJECTION WELLS:

ADEQ states there are no Class III injection well operations within Arkansas.

CLASS IV INJECTION WELLS:

ADEQ states there are no active Class IV injection wells in Arkansas at this time. Federal and state law bans Class IV wells that are not purposed exclusively for remediation of contaminated ground water.

CLASS V INJECTION WELLS:

The ADEQ UIC Program regulates 152 permitted Class V injection wells. No new Class V permit applications for UIC staff review were received during FY2011. It should be noted that the ADEQ's 2011 UIC inventory report to Region 6 states there are 281 Class V wells in Arkansas. The difference in the well count means there are 129 identified Class V wells that do not meet ADEQ's permitting threshold, or are permitted by AOGC as Class V brine injection wells. The majority of Class V wells are permitted through the Permits Branch in the Water Division of the ADEQ. These systems are both industrial septic systems and large capacity domestic waste septic systems. These include systems with a treatment capacity of more than 5000 gallons per day (gpd), including car wash and truck wash facilities, Laundromats, veterinary services, pet kennels, campgrounds, mobile home parks, apartment buildings, schools, and decentralized treatment units with drip irrigation systems. Five Class V wells were

authorized to inject for aquifer remediation projects. Systems with a capacity of 5000 gpd and below are regulated by the Arkansas Department of Health.

The ADEQ works with the ADH under the auspices of a Memorandum of Agreement. It is ADEQ's policy to investigate any complaints of possible Class V well violations promptly. No complaints on Class V wells were received in FY2011. ADEQ indicates that inspections or site visits are conducted on a routine basis to determine compliance with the permit conditions. No permit violations or other action that may have resulted in the potential endangerment of USDWs from Class V well operations were identified during FY2011.

Any complaints of possible Class V well violations are to be investigated promptly. No complaints on Class V wells were received in FY2011. Inspections or site visits are conducted on a routine basis to determine compliance with the permit conditions. No permit violations or other action that may have resulted in the potential endangerment of USDWs from Class V well operations were identified during FY2011.

Program Highlights

Dow Chemical Company (DOW)

Dow operates one Class I Hazardous Waste Injection well at the Dow facility located near Magnolia, Arkansas. The well, originally permitted as a non-hazardous injection well in October of 2002, was converted to a hazardous injection well. The company submitted a request for the modification in October 2004. ADEQ's review was completed in January of 2006. The company received approval of their No Migration Petition from Region 6 in September, 2010. ADEQ's authorization to inject letter was issued December 30, 2010. The well, designated as DWD No. 1 began injection operations in January, 2011. As of this time, the company appears to be operating the well in accordance with their permit.

Great Lakes Solutions, A Chemtura Company (Great Lakes)

West Plant (Marysville)

Great Lakes operates two Class I non-hazardous injection wells at their West plant near El Dorado, Arkansas. Well number WDW-1M has authorization to operate under permit 0016-U which the ADEQ approved November 30, 1999. An application for renewal of the permit was received on April 5, 1999 and is under review by the ADEQ. In the meantime the company asked to have the well declared shut-in. ADEQ issued a letter granting shut-in status to the well April 28, 2010. Well number SWD-14N has authorization to operate under Permit No. 0009-UR-1, issued February 28, 2010 and is currently operating within the terms and conditions laid by the permit.

Newell Plant

Great Lakes operates two Class I hazardous injection wells under authority of Permit No. 0015-U at the Central Plant, Newell facility near El Dorado, Arkansas. The wells, WDW-7N and WDW-8N, are operating within the terms of the existing permit at the time of this review. The company submitted an application to renew permit 0015-U in November of 2008. The

application has been reviewed by ADEQ. The new permit has been written and is under internal review by the agency.

Central Plant

Great Lakes operates two Class I hazardous injection wells under authority of Permit No. 0011-U at their Central Plant, near El Dorado, Arkansas. The wells, WDW-5 and WDW-6, are operating within the conditions of the permit. A permit renewal application for Permit No. 0011-U was submitted in June 2004. The application has been reviewed by ADEQ staff, the new permit written and is now under internal review by the agency management.

South Plant

Great Lakes operates three Class I non-hazardous injection wells under authority of Permit No. 0010-UR-3 at their South Plant, near El Dorado, Arkansas. The permit was renewed August 30, 2007. The wells covered by the permit; WDW-5, WDW-6, and WDW-7; are operating within the limits of the permit as of the time of this review. The company submitted a request to modify WDW-6 February 11, 2010 and the request was approved May 25, 2010. The modifications were completed on WDW-6 and the approval to inject was approved August 10, 2010. ADEQ approved a request for shut-in status on WDW-5 on June 2, 2010.

Albemarle Corporation

Albemarle has the authority to operate one Class I hazardous injection well, WDW #2, and one Class I non-hazardous injection well, WDW #13, under authority of Permit No. 0004-UR-3. (The company closed another hazardous waste injection well, WDW #1 in December, 2003.) WDW #2 has been shut in since April 2006, when the company closed their "DECPT" plant and no longer generated hazardous waste at the site. A formal letter granting shut in status for the well was issued to the company April, 2010. Albemarle wants to keep the WDW #2 well available to receive a liquid leachate that will be produced from a hazardous waste cleanup project at the site. The company submitted a request for renewal of 0004-UR-3, the permit covering WDW #2 and WDW #13, in July 2002.

The company also operates one non-hazardous Class I injection well, WDW #3, under authority of Permit No. 0012-UR-1. Albemarle submitted a request to both renew 0012-UR-, 1 and construct two more non-hazardous Class I injection wells, WDW #4 and WDW #5, in January 2004. In that request the company also sought to combine all their wells under the authority of one permit (0004-UR-3). ADEQ has drafted a new version of Permit No. 0004-UR-3 to make the appropriate changes and received comments on the permit in February, 2010. The final permit was issued April 1, 2012 (FY2012). This resolves the long standing need for new authority to operate at the site.

Red River Aluminum

Red River Aluminum operated a secondary aluminum smelter from 1985 to 1997 at a plant site adjacent to Stamps, Arkansas. The company used a dross smelting process and produced large amounts of sodium chloride, potassium chloride and copper waste that accumulated at the site. The company left those byproducts exposed to the elements. Rain and erosion began to move

the byproducts off property, contaminating the surrounding neighborhood and wetlands, as well as surface and ground water resources. The ADEQ required Red River to contain the runoff from the byproduct piles. Part of the company's solution was to construct a non hazardous injection well on the property to dispose of part of the run off generated by rain water. The well is 3000' in depth, well below the existing useable sources of drinking water in the area. The company stopped operation in 1997 and declared bankruptcy in 1998. They left the well abandoned but unplugged as operations ceased. The bond the company established to cover the costs of well closure was not adequate to cover plugging costs and the well remains unplugged at this time. The well, designated WDW-1, originally operated under authority of Permit No. 0008-U. That permit expired in February, 2000.

The site required clean-up under the EPA and ADEQ hazardous waste regulations, but the well was not plugged as part of the cleanup activities. EPA Region 6, the City of Stamps, AR and ADEQ's Water and Hazardous Waste Divisions have formed a workgroup to find a way to properly plug the well given the lack of funds at the local level to accomplish this task. In the interim the well remains shut-in and ADEQ continues to conduct inspections of the site every two months in order to monitor conditions.

Inspections

The ADEQ UIC staff conducted inspections every two months on each hazardous and non-hazardous Class I well. A total of 84 inspections were conducted during FY2011. On all inspections, the wellhead and monitoring devices were checked and well records were reviewed for compliance, completeness, and accuracy.

Enforcement/Compliance

During FY2011, no formal enforcement action was taken and no complaints concerning Class I injection well operations were received. No significant non-compliance incidents were reported.

Plugging and Abandonment

No wells were plugged and abandoned in FY2011.

Mechanical Integrity Tests (MITs)

The ADEQ UIC staff witnessed mechanical integrity tests (MITs) for UIC wells at all of the active facilities in Arkansas, including the three Great Lakes/Chemtura plants, the Albemarle plant, and the Dow facility. Three two-part MITs, consisting of an annulus pressure test (APT) and a radioactive tracer survey, were performed on the active hazardous waste injection wells. Seven of the ten Class I non-hazardous injection wells were given one-part MITs. All tests demonstrated the integrity of the casing, tubing and packer and no indications of upward movement of fluids were detected at any of the tested wells.

No two-part MITs were performed on any Class I non-hazardous injection wells this fiscal year. The Albemarle hazardous injection well, WDW#2 is temporarily shut-in and was not tested this year. The annulus pressure is being continuously monitored and recorded at this well.

Fall-off Pressure Testing

Pressure fall-off tests were performed on all active Class I non-hazardous and hazardous wells in conjunction with the MITs. No pressure build up in the target formations was detected.

FY2012 ISSUES

Red River Aluminum WDW#1 Closure

The Red River Aluminum WDW#1 well has been shut-in and abandoned without plugging for several years. There is also an abandoned, out of use water well onsite within two hundred yards of the injection well. It is in the best interests of the state to work toward bringing about a quick plugging and abandonment of the UIC well and the nearby water well. In their present state, these wells represent potentially open conduits between the surface and sources of useable drinking water.

Clear Permitting Backlog

Several of the existing UIC permits have exceeded their renewal dates. Specifically, Great Lakes permits 0016-U (West Plant), 0015-U (Newell Plant), 0011-U (Central Plant) and Albemarle permit 0004-UR-3 have not been renewed on schedule. ADEQ should make every effort to resolve this situation as soon as possible in the coming year.

Review and Inspection of Sites

ADEQ has kept up its bimonthly inspection schedule during the past fiscal year and should be commended for this effort and focus on environmental stewardship. It is important the agency continue to work hard to maintain its field presence during the next fiscal year.

Address Closure Requirements for Temporarily Shut-in Wells

Table 4 above lists four UIC wells, excluding the Red River Aluminum well, that have not been in use, in some cases for several years, and have not plugged by their operators. Regulation 40 CFR 144.56(2) requires that wells that have had a two year cessation of operation be plugged by the operator or tested for integrity. In particular, the Great Lakes SWD-1M is well past the date of its two-part MIT procedure. The ADEQ should make every effort to require the operators to either properly plug and abandon these wells or insist the operators thoroughly test each well on a regular basis for mechanical integrity.

ATTACHMENT I

FY2011 Work Plan

Deliverables: The tables below list the items the state committed to providing as part of their work plan for FY2011 and the dates on which those items were made available to EPA Region 6's Water Quality Protection Division.

ADEQ UIC Program FY2011 Plan Summary and Results October 1, 2010 to September 30, 2011		
Element	Topic/Description	Result/Comments
ELEMENT A	ENFORCEMENT AND COMPLIANCE	
1 Compliance Monitoring	a. Class I well Inspections b. Class I Petition Compliance Reviews Class I Hazardous Well Petition Condition Compliance Reviews c. Annulus Pressure Testing. Class I MITs d. Fluid movement testing. Class I MITs e. Reporting f. Prompt response to citizen complaints	See Tables 1, 2 and 3 for details. Yes, as part of permit compliance inspections for these wells. See Tables 1, 2 and 3 for details. See Tables 1, 2 and 3 for details. See Tables 1, 2 and 3 for details. No complaints received in FY11.
2. Occasional Sampling of Class I and V wells.		ADEQ sampled tail brine injection fluids in May and Sept, to verify compliance with permit conditions.
3. Program Activity Measures (PAMs)	For each Class I, II and III well: # of wells with significant violations # of wells with significant violations that were addressed For each Class V well: # of wells with significant violations # of wells with significant violations that were addressed For Motor Vehicle Waste Disposal Wells (MVWDW): # of MVWDWs on inventory # of MVWDWs Closed or permitted	1, ADEQ detected one violation during FY11 that was immediately corrected. No enforcement action was deemed necessary. 1 0 0 65 0, ADEQ reported 67 on inventory for FY10 and 65 for FY11. Many of the MVWDW wells on ADEQ inventory may not meet the federal UIC definition for a MVWDW UIC. Region 6 and ADEQ should work together to be sure this inventory accurately reflect the needs of the federal program.
For each Class I, II and III (salt solution mining		

ADEQ UIC Program FY2011 Plan Summary and Results
October 1, 2010 to September 30, 2011

Element	Topic/Description	Result/Comments
ELEMENT A	ENFORCEMENT AND COMPLIANCE	
	<p>wells only) well:</p> <p># of wells that failed Mechanical Integrity</p> <p># of wells that were expected to maintain Integrity</p> <p>For high-priority Class V wells identified in GW based community water system source water areas:</p> <p># on inventory</p> <p># Closed or permitted</p>	<p>0, Note: ADEQ inspected 110 Class II surface facilities during FY2011.</p> <p>All are expected to maintain mechanical integrity. See Tables 1, 2 and 3 for details.</p> <p>152</p> <p>0, ADEQ reported 161 on inventory for FY2010 and 152 for FY2011, the difference in figures is attributed to better inventorying of sources.</p>
4. Formal enforcement actions	<p>Seek penalties for violations involving:</p> <p>Unauthorized injection,</p> <p>Violation of an AO or Judicial Decree</p> <p>Recalcitrance on part of Owner/Operator (O/O)</p> <p>Falsified information from O/O</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p>
5. All violations addressed consistent with EPA Significant Noncompliance (SNC) guidance.	One Violation detected in FY2011.	1, The violation was immediately corrected.
6. Take one or more of these actions after SNC identified.	<p>a. Verify O/O has returned to compliance</p> <p>b. Draft enforcement letter</p> <p>c. Initiate enforcement schedule.</p> <p>d. Initiate formal enforcement action.</p>	<p>1 Violation</p> <p>1 Issued Violation corrected.</p> <p>N/A</p> <p>N/A</p>
7. Revise enforcement requirements as necessary		N/A, No Changes or revisions reported
8. Update enforcement procedure		N/A, No Changes or updates reported
9. Inspect Federal Facilities.		N/A, No Federal UIC facilities in Arkansas
10. Investigate, plug & abandon (P&A) any found Class IV wells Identified.		N/A, No activity reported or necessary
11. Close or cease operations of any Class V wells endangering Groundwater or Useable Sources of Drinking Water		N/A, No Activity reported or necessary

ADEQ UIC Program FY2011 Plan Summary and Results
October 1, 2010 to September 30, 2011

Element	Topic/Description	Result/Comments
ELEMENT B	Permitting	
1. Ensure Class I, III and V wells are permitted		All Class I and V sites are permitted as of this FY. There are no Class III sites in Ark.
2. ADEQ / Arkansas Oil and Gas Commission (AOGC) staff review each permit application and modification request for Class I wells		No new permit applications or modification requests rec'd this FY.
3. Emphasize permitting or Closure of Class V wells		No Closures reported. Series of Class V remediation pilot studies underway
4. Coordinate Class V shallow Injection well permitting with Arkansas Department of Health (ADH) Wellhead Protection Program (WPP)		No Joint actions were accomplished or needed in FY2011. However the ADEQ maintained communication on Class V authorizations issued.
5. ADEQ will permit surface facility associated with Class V debrominated brine disposal and Class II salt water disposal (SWD) systems.		No joint actions with AOGC were accomplished in FY2011 but ADEQ did receive applications that will be processed in FY2012.
6 Finalize Great Lakes and Albemarle new permit and permit renewal application reviews		Two Albemarle permits, 0004-UR-2 and 0012-U, have been combined into permit 0004-UR-S. This final permit was issued April 1, 2012. Great Lakes draft permits 0015-UR-2 & 0011-UR-1 have been written and are under ADEQ Management review. Great Lakes draft permit 0016-UR-1 2 was being written at the time of this review.
7 Revise permitting procedures as necessary		No permitting procedural revisions reported by ADEQ in FY2011.
8 Conduct permit appeal hearings as necessary		No permit appeals hearings held in FY2011.
9 Oversee/witness P&A of Class V and Class I well		No P&A activity for Class I and V wells reported.
10 Address corrective action for Area of Review of permitted facilities		No Area of Review corrective actions reported for FY2011.
11 Review modification applications for Class I Hazardous well permits		N/A, No modification applications were submitted in FY2011.
12 Incorporate "no migration" requirements into existing Class I permits as EPA issues no migration petition approvals		N/A, No requirements needed incorporation into an ADEQ permit in FY2011.
13 Review injection volume, rates and pressure for Class V and Class I wells to ensure:		
Injection pressure won't initiate or propagate fractures in injection zones		Bimonthly review of injection sites for Class I sites were completed during FY. This concern not applicable to ADEQ's Class V wells due to construction and depth of wells.
Injection pressure won't cause movement of injected or formation fluids into a USDW		No evidence of fluid movement detected in Class I wells.

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Element	Topic/Description	Result/Comments
ELEMENT C	TECHNICAL SERVICES/ QUALITY ASSURANCE	
1. Field surveillance using dedicated vehicle.		ADEQ reported using dedicated vehicle for 84 bi-monthly inspections, 7 1-part MITs, 3 2-part MITs.
2. Pressure fall off testing		See Tables 1, 2 and 3 for details.
3. RBDMS maintenance		ADEQ reported populating and maintaining RBDMS as necessary.
4. Lab support to ADEQ/AOGC		ADEQ reported assisting AOGC with tail brine sampling, Quality Assurance Project Plan (QAPP) and Quality Management Plan development and execution.
5. QAPP due May 2011		QAPP recd.
6. ADEQ operates under FY2011's Quality Assurance (QA) plan until new QA plan is approved by R6.		QA plan approved.
7. ADEQ annual report due 10/31/11		Report submitted Dec. 14, 2011.

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Element	Topic/Description	Result/Comments
ELEMENT D	REPORTING	
1. Submit UIC program reports		See Appendix IV of this table for summary.
2. Submit reports as scheduled on Table 4		See Appendix IV of this table for summary.
3. PAMs to be included in FY11 work plan		Included and reported on. See Appendix IV of this table for summary.
4. Notify EPA of Equip purchases => \$500 2 wks prior to purchase		No purchases noted.
5. Submit draft WP and QAPP for EPA review		Work plan for FY2012 and QAPP was submitted for EPA review.
6. Require financial assurance (FA) for any new, renewal, or modified UIC Permits		FA in place for new, renewed/modified permits Details available for public review in permit files
a. amt of FA		Addressed as part of permit and /or modification reviews
b. Length of FA before it is renewed again.		ADEQ carries out annual review of a facility's FA.
c. permit #,0004-UR-2, 0012-U 0017-UR-1, 0011-U, 0009-U, 0015-UR-1, 0010-UR-3		These seven permits were reviewed for FA during the review year.
d. name of Owner and Operator if not the same		Owner and Operator names are noted in
e. name of well		Noted in end of year permit compliance reviews.
f. location of well		Noted in publicly available permit file.
g. notify R6 of any FA changes for existing or new well w/in 30 days.		ADEQ did not note any changes to FA requirements in FY2011.

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Element	Topic/Description	Result/Comments
ELEMENT E	PUBLIC PARTICIPATION AND TRAINING	
1. Public outreach, mainly re: Class V 4/5/00 amendments	Two public meetings regarding the Class II UIC surface storage facilities conducted in FY2011.	
2. Public Notice for Class I and V permit applications.	No Public Notices for Class I or Class V permits were needed in FY2011.	
3. Provide info /Compliance assistance to O/O	Compliance Assistance provided as necessary during FY2011	
4. Train ADEQ staff as appropriate. Assist O/O with technical assistance as necessary.	ADEQ indicates training for staff provided during FY2011. EPA-sponsored "Open Borehole Logging" training held in Little Rock Aug. 3-4, 2011.	

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Element	Topic/Description	Result/Comments
ELEMENT F	PROGRAM ADMINISTRATION	
1. Implement UIC program as required by SDWA / Federal / State UIC programs	ADEQ implemented UIC regulation in Arkansas in FY2011.	
2. ADEQ maintains jurisdiction over Class I, III, IV and V wells. ADEQ permits surface facilities associated with Class II well permitted by AOGC.	This status is unchanged since last program review.	
3. UIC program will be coordinated with local State and Federal agencies, emphasizing RCRA, 106 GW Program and Class V well regulations of 4/5/00.	Coordination with local, other state and federal officials accomplished in FY2011.	
4. Notify EPA any changes to UIC program including regulation/statutory changes. And changes to primacy delegation (AG's statement, MOU) will require Fed and State adoption.	No notifications to EPA provided in FY2011. No significant changes made to program in FY2011.	
5. FY2012 WP and grant application will be submitted by 7/15/11.	FY2012 WP and grant application received June 27, 2011.	
6. Evaluate impacts of Shallow Class V wells in critical groundwater areas.	No evaluation conducted and reported to EPA in FY2011.	
7. Actions taken to indentify Class V wells and address potential endangerment.	No Actions taken or reported to EPA in FY2011.	
8. Inventory and permit or close Class V UIC wells P&A Class Vs impacting critical groundwater areas or useable sources of drinking water	No detailed Class V inventory or activity information provided to EPA. ADEQ indicates they have a detailed Class V inventory and will make it available upon request.	
9. Permit Class V wells as necessary	No permitting of Class Vs in FY2011, other than the five remediation projects mentioned above.	
10. Class V activities including well inspection, permitting and enforcement actions when necessary	No compliance activity on Class V wells reported in FY2011.	

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Element	Topic/Description	Result/Comments
ELEMENT F	PROGRAM ADMINISTRATION	
11. Staff will assist other state and federal agency to ensure UIC program mandates are met.		ADEQ reported assisting other state and federal agencies. (Tail brine sampling for AOGC. Provided input to EPA R6 for program implementation, including PAMs measures.)
12. ADEQ will coordinate with R6 in adoption and implementation of any new regulation or Best Management Practice (BMP) for Class V wells.		No coordination reported, since no new regulations or BMPs adopted in FY2011.
13. R6 will evaluate ADEQ implementation of FY2011 WP during mid-yr and EOY reviews.		No Midyear provided by EPA during FY2011.
14. ADEQ will assist R6 with petition review for land ban applications.		Assistance provided to R6 Land Ban group as needed.
15. ADEQ will participate in joint state and federal multimedia inspections and enforcement actions.		No multimedia inspections or enforcement actions reported in FY2011.
16. ADEQ will coordinate with other State agencies and divisions.		ADEQ reported coordinating as requested and when necessary during FY2011, but did not provide details.
17. Class V well regulation revision package submitted. ADEQ will work with R6 to finalize package in FY2011.		No progress on Class V regulation made in FY2011. Waiting on input from EPA HQ.

Appendix I		FIELD ACTIVITIES
		See Tables 1, 2 and 3 for details.

Appendix IV (Table 4)			
DELIVERABLE	DUE DATE	RECEIVED	
Program, Regulatory and Legislative Update	October 31, 2011	December 19, 2011	
Summary of UIC Program Highlights (end-of-year narrative & table)	October 31, 2011	December 19, 2011	
Organizational Chart for the ADEQ and the Water Division	October 31, 2011	December 19, 2011	
Updated Contact List	October 31, 2011	December 19, 2011	
FY 2011 Financial Status Report (FSR)	December 31, 2011	December 28, 2011	
Copy of Compliance Verification Forms for Class I Hazardous Wells	December 31, 2010	December 30, 2010	
2010 Well Inventory	December 31, 2010	December 30, 2010	
Quality Assurance Plan (QAPP)- includes updated signature page	April 15, 2011	March 14, 2011	
FY 2010 Quarterly Reports (7520s)	October 31, 2010	October 26, 2010	
	January 31, 2011	January 26, 2011	
	April 30, 2011	April 28, 2011	
	July 31, 2011	July 25, 2011	

Appendix IV (Table 4)			
DELIVERABLE	DUE DATE	RECEIVED	
MBE/WBE Quarterly Reports	October 31, 2010; January 31, 2011; April 30, 2011; July 31, 2011	Annual report received November 21, 2011.	
PAMs	April 15, 2011	April 14, 2011	
	October 15, 2011	October , 2011	
Final FY 2011 Grant Application/Work Plan	July 15, 2011	Both Application and Work Plan Submitted in November, 2010.	

